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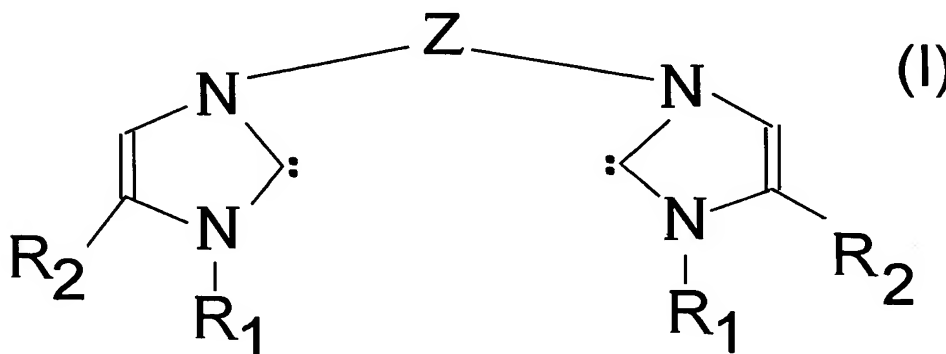
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[Continued on next page]

(54) Title: METAL COMPLEXES OF N-HETEROCYCLIC CARBENES AS RADIOPHARMACEUTICALS AND ANTIBIOTICS



(57) Abstract: A method for inhibiting microbial growth comprises administering an effective amount of a silver complex of a N-heterocyclic amine. A method for treating cancer cells or a method for imaging one or more tissues of a patient includes administering an effective amount of a complex of a N-heterocyclic amine and a radioactive metal. N-heterocyclic carbenes of the present invention may be represented by formula (I) wherein Z is a heterocyclic group, and R<sub>1</sub> and R<sub>2</sub> are, independently or in combination, hydrogen or a C<sub>1</sub>-C<sub>12</sub> organic group selected from the group consisting of alkyl, cycloalkyl, alkenyl, cycloalkenyl, alkynyl, aryl, arylalkyl, alkylaryl, heterocyclic, and alkoxy groups and substituted derivatives thereof.



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